

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 09-084816

(43)Date of publication of application : 31.03.1997

(51)Int.Cl.

A61F 5/44
A61F 13/15

(21)Application number : 07-329435

(71)Applicant : NACHI RYOZO
NACHI TOMITARO
NACHI RYOKO

(22)Date of filing : 27.11.1995

(72)Inventor : NACHI RYOZO

(30)Priority

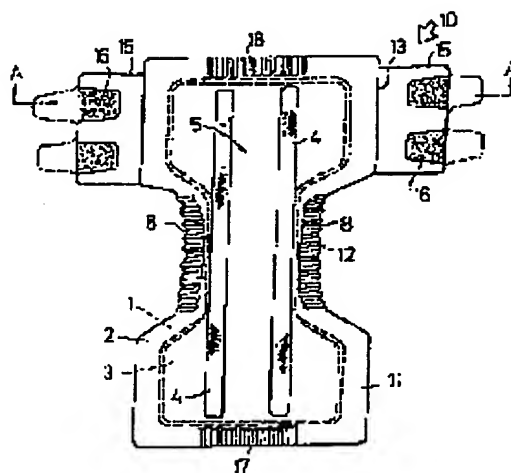
Priority number : 07201805 Priority date : 17.07.1995 Priority country : JP

(54) PAPER DIAPER

(57)Abstract:

PROBLEM TO BE SOLVED: To certainly prevent the lateral, back and abdominal leakage of excretion or filth by forming a space between the hips and a diaper.

SOLUTION: The front part 11 on an abdomen side and a back part 13 on a back side is provided to the front and rear of a crotch part 12 from a surface material 1 composed of a nonwoven fabric, the absorbing paper 2 superposed on the inner surface of the skin material 1 and the water absorbing material 3 interposed between the surface material 1 and the absorbing paper 2 and composed of cotton pulp to form a paper diaper 10. A pair of lateral leakage preventing ridges 14 composed of an absorbing material are parallelly provided to a skin applying surface in a freely detachable or foldable superposed state along the back part 13 from the front part of the diaper 10 through the crotch part 12 to demarcate and form a space part 5 between the ridges 4, 4. By this constitution, when the back part 13 of the diaper 10 is applied to the hips and the front part 11 is erected toward the abdomen and an abdomen applying part 15 is bonded to the front part to apply the diaper, the built-up ridge parts are pressed to the skin to be closely bonded to the hips and even if the body is directed laterally, the lateral leakage of sewage and filth can be prevented.



LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than

the examiner's decision of rejection or
application converted registration]
[Date of final disposal for application]
[Patent number]
[Date of registration]
[Number of appeal against examiner's decision
of rejection]
[Date of requesting appeal against examiner's
decision of rejection]
[Date of extinction of right]

Copyright (C); 1998,2003 Japan Patent Office

* NOTICES *

JPO and NCIP I are not responsible for any damages caused by the use of this translation.

- 1.This document has been translated by computer. So the translation may not reflect the original precisely.
- 2.**** shows the word which can not be translated.
- 3.In the drawings, any words are not translated.

CLAIMS

[Claim(s)]

[Claim 1] In the disposable diaper which constituted the anterior part of the dinner pad, and the regions of back of back reliance from water absorption material which consists of curdy pulp which carried out mediation disposition between the facing which consists of a nonwoven fabric, the absorbent paper with which carried out the polymerization to the inside of this facing, and it was equipped, and facing and an absorbent paper before and after ***** The disposable diaper which opens pair spacing for the horizontal leakage prevention protruding line which consists of an absorber along regions of back through ***** from the anterior part of this disposable diaper, and is characterized by that attachment and detachment are free or having carried out the bending polymerization protrusion and carrying out partition formation of the space section between each protruding line in parallel at the skin present.

[Claim 2] The disposable diaper according to claim 1 by which opposite disposition is carried out by said horizontal leakage prevention protruding line's consisting of tape-like water absorption material which covered the core material of curdy pulp with the absorbent paper, bending and carrying out a polymerization to double fold the shape of a cross section of U characters from the center section in alignment with the longitudinal direction of this tape-like water absorption material, and making a bending part into the outside of a disposable diaper.

[Claim 3] The disposable diaper according to claim 1 which consists of what said horizontal leakage prevention protruding line equipped with the Yamagata section which rose in parallel along with the edges on both sides of band-like water absorption material.

[Claim 4] The disposable diaper according to claim 1 with which folding shaping of said horizontal leakage prevention protruding line is carried out horizontally by return [sheet stock / containing water absorption material].

[Translation done.]

* NOTICES *

JPO and NCIPi are not responsible for any damages caused by the use of this translation.

- 1.This document has been translated by computer. So the translation may not reflect the original precisely.
- 2.**** shows the word which can not be translated.
- 3.In the drawings, any words are not translated.

DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention relates to disposable diapers, such as a disposable bundle used for the wounded person who needs a hospital patient and the other care under an incontinencia patient or a physically handicapped person, elderly people, or long-term medical treatment, and care pants or trousers.

[0002]

[Description of the Prior Art] The disposable diaper constituted from water absorption material which consists of curdy pulp which carried out mediation disposition between the facing which considers as the bundle which processes urine and the excrement of a loose passage sanitarly and simply from the former, and consists of a nonwoven fabric, the absorbent paper with which carried out the polymerization to the inside of this facing, and it was equipped, and facing and an absorbent paper by the trousers gestalt which consists of anterior part, *****, and regions of back is used abundantly.

[0003]

[Problem(s) to be Solved by the Invention] The medication for generally controlling urination and defecation at a hospital, a home, etc., the old person under long-term medical treatment, etc. tend to become watery stool by alimentation by intravenous drip or tube feeding, and it will be in an incontinencia condition in many cases, even if it carries out a diaper, there are many horizontal leaks, and in order to prevent a bedsore, or since there is a bedsore, when the body sometimes needs to be made into horizontal ****, excrement is having trouble from the side of a diaper to leakage or the handling which becomes empty. Although what prepares the crotch gathers which leak so that the skin may be fitted as a device not leaking, attach prevention gathers or hit the circumference of a thigh, and prevented the horizontal leak, a back leak, an antinode leak, etc. was proposed in the conventional disposable diaper, when it is almost impossible to prevent the horizontal leak of watery stool and there were no quantitative allowances depending on the amount of sordes, it had leaked with the disposable diaper by which current marketing is carried out. Therefore, although a diaper is made into three-fold [a duplex and], or it covers with another disposable diaper on a sheet further and it corresponds to such a patient in the hospital, a pajamas, a sheet, etc. will be soiled, it is troubled by the processing, without the ability still protecting, and the burden of economical and care is very large. In the case of the old person under long-term medical treatment, these were deforming the body, while there was a cause also in often not being put in a current diaper in many cases, either, by leak prevention gathers, had stuck, and the body was crushed, and carried out overflow, or oozed out, and became a horizontal leak, a back leak, and an antinode leak, and also there was also ***** and there was a problem. the disposable diaper by the dry rough skin which it crowd together , and there be no ***** , always keep the hips dry , maintain a comfortable condition , and be use in comfort while this invention tend to eliminate the fault of these former , form space between the hips and a diaper and prevent certainly the horizontal leak of a urine or a sordes , a back leak , an antinode leak , etc. -- a configuration -- it aim at provide with an easy and cheap gestalt .

[0004]

[Means for Solving the Problem] The absorbent paper which carried out the polymerization of this invention to the inside of the facing which consists of a nonwoven fabric, and this facing, and it had, In the disposable diaper which constituted the anterior part of the dinner pad, and the regions of back of back reliance from water absorption material which consists of curdy pulp which carried out mediation disposition between facing and an absorbent paper before and after ***** pass ***** from the anterior part of this disposable diaper -- pair spacing is opened for the horizontal leakage prevention protruding line which consists of an absorber along regions of back, and attachment and detachment are free to the skin present in parallel -- or a bending polymerization protrusion is carried out and partition formation of the space section is carried out between each protruding line.

[0005]

[Embodiment of the Invention] When apply the regions of back of a disposable diaper to a hips side, anterior part is started to a venter, a belly pad is joined to anterior part and it equips with a diaper, Even if the protruding line section which is as a peak top is forced on the skin, sticks to the hips and changes the body sideways, while being able to prevent the horizontal leakage of the sanitary sewage and a sordes Since the space section is always made between a diaper and a skin, crowd together, there is no ***** and it is used for insurance in the dry condition. Even when there are still more amounts of sordes, there is the space section and it is generous, and since it can certainly guard and can moreover also adjust in accordance with the body, it is very convenient, it is dealt with, and a horizontal leak etc. can be easy and can be used as a reliable disposable diaper.

[0006]

[Example] the water-absorption material 3 which consists of curdy pulp which carried out mediation disposition between the facing 1 which consists of nonwoven fabrics, such as polyethylene, polypropylene, or polyester, the absorbent paper 2 with which carried out the polymerization to the inside of this facing 1, and it was equipped, and facing 1 and an absorbent paper 2 when the example of drawing 1 thru/or the trousers mold disposable diaper of drawing 4 explained the example of this invention -- ***** 12 order -- the anterior part 11 of the dinner pad, and the regions of back of back reliance -- 13 is constituted and it has considered as the disposable diaper 10. In this case, it is good for facing 1 independent or to constitute the disposable diaper 10 which carried out polymerization wearing of the water absorption material 3 which combines, uses and is from other curdy pulp and absorbent-paper 2 and macromolecules water absorption material on the inside side of that facing 1, and fabricated anterior part 11, ***** 12, and regions-of-back 13 for the water blocking materials 9, such as a polyethylene film, if needed.

[0007] and pass ***** 12 from the anterior part 11 of this disposable diaper 10 -- regions of back -- the horizontal leakage prevention protruding line 4 which consists of an absorber along with 13 -- pair spacing -- opening -- parallel -- the skin present -- attachment-and-detachment ease -- or a bending polymerization protrusion is carried out and partition formation of the space section 5 has been carried out between a protruding line 4 and 4. As this horizontal leakage prevention protruding line 4, the shape of a rail covered with an absorbent paper or the shape of a network, and a porous resin film heaps up curdy pulp. The member of 1.5-2.5cm, for example, height, Although the protruding line 4 with a width of 2.5-5.0cm is arranged free [attachment and detachment] through a glue line 6, for example, adhesive tape, or another hot melt and adhesives layer on either the inside 2 of a disposable diaper 10, i.e., an absorbent paper, or the water absorption material 3 and a both side and it enables it to have adjusted freely in accordance with the body The water absorption material 3 lined by the inside of said disposable diaper 10 can heap up, and size enlargement can also be carried out to one in the section, it is pressed by weight, and although a protruding line 4 is compressed a little, it has made reservation of the space section 5 easy.

[0008] In addition, although what was covered by facing by making water absorption material into a core material is used for said horizontal leakage prevention protruding line 4, it can be heaped up using a cushioning material or the frail material which cannot be crushed easily in addition to

this as a core material, and can also be made into the section. Moreover, although spacing is opened and said protruding line 4 is arranged at pair parallel, if needed, anterior part 11 and regions-of-back 13 can be equipped with the protruding line (not shown) made [the both ends] to carry out a bridge with one or a separate object, and the safety of leak prevention can also be raised further.

[0009] In the example of drawing 5, said horizontal leakage prevention protruding line 4 consists of tape-like water absorption material which covered the core material of curdy pulp with the absorbent paper. The shape of a rod which bent and carried out the polymerization to double fold the shape of a cross section of U characters from the center section in alignment with the longitudinal direction of this tape-like water absorption material heaps up, and it is a member 41. It uses. Make a bending part into the outside of a disposable diaper, have enabled opposite disposition of the attachment and detachment by the glue lines 6, such as adhesive tape or a fastener made of cloth, and the adhesion to the body is improved by the rebounding force by bending. It has easy-been made toize formation reservation of the space section 5, and moreover, by the clearance 14 by bending, horizontal leak prevention can be trustworthy and can also make it useful to capacity increase. The aforementioned peak raising member 41 Since the part has not pasted up by the glue line 6, it makes a diaper front face meet if needed, can also use it in the flat condition, and it bends and carries out the polymerization of the sheet stock to folding formation of the horizontal leakage prevention protruding line 4 by return one layer or multiplex, the shape of a rod heaps up, and it is a member 41. You may constitute.

[0010] The Yamagata section 42 which rose in parallel as said horizontal leakage prevention protruding line 4 in the example of drawing 6 along with the edges on both sides of the band-like water absorption material 3 Or consist of what was equipped with the Yamagata section by the polymerization by return, it enables it to have guarded the horizontal leak of urinary exudation or a loose passage, and a front-face side is considered [covering an absorbent paper 2 or blanket-like material and].

[0011] in addition, said horizontal leakage prevention protruding line 4 -- or -- heaping up -- member 41 you may carry out to facing 1 by the anterior part 11 and edge side of regions-of-back 13, and partial [covering an overall length / including an absorbent paper 2] to adhesion to a disposable diaper 10, -- or you may carry out continuously. Moreover, although the gathers section 8 is formed in a disposable diaper 10 by the flexible material 7, such as polyurethane, at ***** 12 and the gathers sections 17 and 18 are further formed in anterior part 11 and regions-of-back 13, it is also omissible if needed. Furthermore, the belly pad 15 in alignment with the circumference of the waist is formed in said edges on both sides of regions-of-back 13, and it has a piece of connection with the attachment tape 16 joined to this belly pad 15 at anterior part 11, and it constitutes so that it can connect [anterior part / 11] free [the attachment and detachment to the water blocking material 9 of the formed polyethylene film].

[0012] 13 is covered. pass ***** 12 from the anterior part 11 of a disposable diaper 10 in the example of drawing 7 and drawing 8 -- regions of back -- Fold the sheet stock containing the water absorption material 3 in horizontal or a perpendicular direction, **** and bend it to it, and it considers as a protruding line 4. In this protruding line 4, spacing is opened in parallel, one pair is prepared, anterior part is started to a venter, and it is the junction tape 161. It enables it to have ensured leakage prevention without being able to stop firmly at an abdomen and a diaper's moving, when the existing belly pad 15 is joined to anterior part 11 and a diaper is carried out. In this case, although thickness can be adjusted to the configuration of said protruding line 4 by the core material, it should turn up horizontally not only to the thing (drawing 8 a) of one clinch but to the duplex, forming a clearance 14 (drawing 8 b), or the height of a protruding line can be chosen by what was turned up to multiplex (drawing 8 c). Moreover, the consideration at least whose both ends turn up a clinch perpendicularly, i.e., can bend jaggedly, can also fabricate a protruding line 4, paste up covering an overall length, paste up this folding part partially, for example, prevent mold collapse by pasting up a chisel etc. is made.

[0013] Although there was 360g **** by the patient who starts care most as for a hand when a fitting experiment is conducted in a hospital using the disposable diaper of the example of drawing 1 when it remained as it is from 8:00 p.m. to 6:00 of the next morning for 10 hours, there

was no leakage. Although the patient was renewing the diaper at intervals of 4 hours usually, since it was started whenever [the], or the body hurt, it disliked and a diaper was not changed for 10 hours, his mood spread when it can sleep soundly was good. Moreover, when the pajamas and the sheet were tried on to the patient who soiled no less than 3 times, although the 1st sheet was carrying out 520g **** in about 2 hours, it had not leaked. The 2nd more diaper had 330g ****, and this had not leaked, either. However, when the conventional diaper is made the 3rd sheet, by 2:30, i.e., 3 hours and 30 minutes, 260g **** is carried out, it leaks from 11:00 in the next morning night, a pajamas is also lost at this time, and the rest has brought a result for which a bath towel is substituted. It was proved above that the disposable diaper of an example had marked effectiveness compared with the conventional thing.

[0014]

[Effect of the Invention] The absorbent paper which carried out the polymerization of this invention to the inside of the facing which consists of a nonwoven fabric, and this facing, and it had, By the water absorption material which consists of curdy pulp which carried out mediation disposition between facing and an absorbent paper, before and after ***** The anterior part of the dinner pad, It is the disposable diaper which constituted the regions of back of back reliance, and pair spacing is opened for the horizontal leakage prevention protruding line which consists of an absorber along regions of back through ***** from the anterior part of this disposable diaper. That the attachment and detachment to the skin present are free in parallel, or by having carried out the bending polymerization protrusion and having carried out partition formation of the space section between each protruding line When apply the regions of back of a disposable diaper to a hips side, anterior part is started to a venter, a belly pad is joined to anterior part and it equips with a diaper, Even if the protruding line section which is as a peak top is forced on the skin, sticks to the hips and changes the body sideways, while being able to prevent the horizontal leakage of the sanitary sewage and a sordes Since the space section is always made between a diaper and a skin, crowd together, there is no ***** and it is used for insurance in the dry condition. Since it can moreover also adjust in accordance with the body, it is very convenient, it is dealt with, even when there are still more amounts of sordes, there is the space section and it is generous, a horizontal leak etc. can certainly be guarded, it can be easy and can consider as a reliable disposable diaper, and a comfortable condition is maintained and it is used in comfort.

[Translation done.]

* NOTICES *

JPO and NCIP are not responsible for any damages caused by the use of this translation.

1.This document has been translated by computer. So the translation may not reflect the original precisely.

2.**** shows the word which can not be translated.

3.In the drawings, any words are not translated.

DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] It is the top view of the expansion condition which shows the example of this invention.

[Drawing 2] It is drawing of longitudinal section in the A-A line of drawing 1 .

[Drawing 3] It is the perspective view of the dressing busy condition of the example of drawing 1 .

[Drawing 4] It is the surface Fig. of the condition just before the completion of fixation of the example of drawing 1 .

[Drawing 5] It is drawing of longitudinal section of other examples of this invention.

[Drawing 6] It is drawing of longitudinal section of the example of further others of this invention.

[Drawing 7] It is the expansion perspective view of other examples of this invention.

[Drawing 8] With the enlarged vertical longitudinal sectional view in the B-B line of drawing 7 , (a) shows the protruding line of one chip box, (b) is the protruding line of double fold and (c) shows the protruding line of a multiplex chip box with it.

[Description of Notations]

1 Facing

2 Absorbent Paper

3 Water Absorption Material

4 Protruding Line

41 Climax Member

42 Yamagata Section

5 Space Section

6 Glue Line

7 Flexible Material

8 Gathers Section

9 Water Blocking Material

10 Disposable Diaper

11 Anterior Part

12 *****

13 Regions of Back

14 Clearance

15 Belly Pad

16 Attachment Tape

17 18 Gathers section

[Translation done.]

(19) 日本国特許庁 (J P)

(12) 公開特許公報 (A)

(11)特許出願公開番号

特開平9-84816

(43)公開日 平成9年(1997)3月31日

(51) Int.Cl.⁶

識別記号

片内整理番号

FI

技術表示箇所

A 6 1 F 5/44
13/15

A 6 1 F 5/44
A 4 1 B 13/02

H
G

審査請求 未請求 請求項の数4 FD (全 5 頁)

(21)出願番号 特願平7-329435

(22) 出願日 平成7年(1995)11月27日

(31)優先權主張番号 特願平7-201805

(32) 優先日 平 7 (1995) 7 月 17 日

(33)優先権主張国 日本 (J P)

(71)出願人 595113738

名知 了三

神奈川県鎌倉市笛田466-8 クリオ鎌倉
笛田410

(71)出願人 595113749

名知 富太郎

神奈川県鎌倉市笛田466-8 クリオ鎌倉
笛田410

(71)出願人 595113750

名知 良子

神奈川県鎌倉市笛田466-8 クリオ鎌倉
笛田410

(74) 代理人 弁理士 薬師 稔 (外1名)

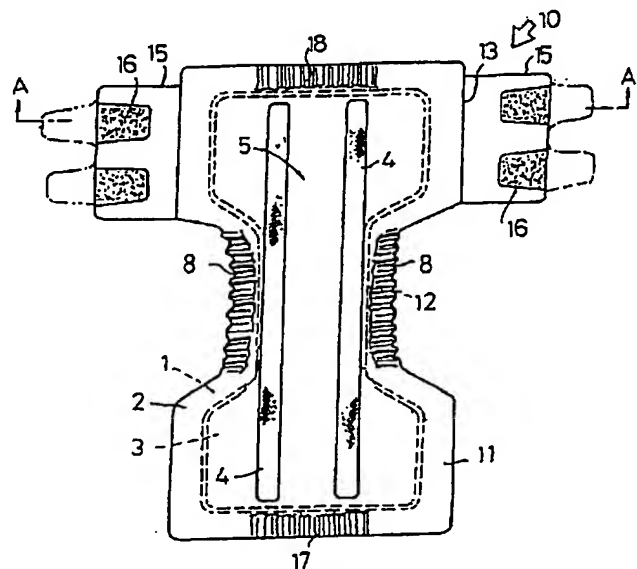
最終頁に続く

(54) 【発明の名称】 紙おむつ

(57) 【要約】

【課題】 尻とおむつとの間に空間を形成し尿や汚物の横もれ、背もれ、腹もれなどを確実に防止する。

【解決手段】 不織布からなる表面材１と、該表面材１の内面に重合して備えた吸収紙２と、表面材１と吸収紙２との間に介在配備した綿状パルプからなる吸水材３とで股当部１２の前後に腹当ての前部１１と背当ての背部１３とを構成した紙おむつ１０の前部１１から股当部１２を経て背部１３に沿って吸収材からなる横漏れ防止突条４を一对間隔をあけて平行に肌当面に着脱自在、或いは折曲重合突設して各突条４、４間に空間部５を区画形成したことで、紙おむつの背部を尻側に当て前部を腹側に持ち起して腹当部を前部に接合しおむつを装着したとき、盛り上っている突条部が肌に押し付けられて尻に密着し身体を横向きに替えても汚水、汚物の横漏れを防ぐことができる。



【特許請求の範囲】

【請求項 1】 不織布からなる表面材と、該表面材の内面に重合して備えた吸収紙と、表面材と吸収紙との間に介在配備した綿状パルプからなる吸水材とで股当部の前後に腹当ての前部と、背当ての背部とを構成した紙おむつにおいて、該紙おむつの前部から股当部を経て背部に沿って吸収材からなる横漏れ防止突条を一对間隔をあけて平行に肌当面に着脱自在或いは折曲重合突設して各突条間に空間部を区画形成したことを特徴とする紙おむつ。

【請求項 2】 前記横漏れ防止突条が、綿状パルプの芯材を吸収紙で被覆したテープ状吸水材からなり、該テープ状吸水材の長手方向に沿った中央部から断面 U 字状に二つ折りに折曲げ重合し、折曲部位を紙おむつの外側に對向配備されている請求項 1 記載の紙おむつ。

【請求項 3】 前記横漏れ防止突条が、帯状吸水材の両側縁に沿って平行に盛り上がった山形部を備えたものからなる請求項 1 記載の紙おむつ。

【請求項 4】 前記横漏れ防止突条が、吸水材を含むシート素材を水平方向に折り返し折曲げ成形されている請求項 1 記載の紙おむつ。

【発明の詳細な説明】

【0001】

【発明の属する技術分野】本発明は、失禁患者或いは身体障害者や高齢者若しくは長期療養中の病院患者その他介護を必要とする人が人などに用いられる使い捨ておしめや、ケアーパット若しくはパンツなどの紙おむつに関するものである。

【0002】

【従来の技術】従来から尿、軟便の排泄物を衛生的で簡易に処理するおしめとして不織布からなる表面材と、該表面材の内面に重合して備えた吸収紙と、表面材と吸収紙との間に介在配備した綿状パルプからなる吸水材とで前部、股当部及び背部からなるパンツ形態に構成された紙おむつが多用されている。

【0003】

【発明が解決しようとする課題】一般に、病院や家庭などで排尿、排便をコントロールするための薬剤投与や、長期療養中のお年寄などは点滴や経管栄養で栄養補給によって水状便になりやすいし、失禁状態となることが多く、おむつをしても横もれが多く、また床ずれを防ぐためあるいは床ずれがあるために時々身体を横むきにする必要がある場合には、おむつの横から排泄物が漏れやすく、取扱いに難渋している。従来の紙おむつでは漏れない工夫として肌にフィットするようにもれ防止ギャザーをつけたり太もも廻りに当たる股ギャザーを設けて横もれや、背もれ、腹もれなどを防ぐようにしたものも提案されているが、現在市販されている紙おむつでは水状便の横もれを防ぐことはほとんど不可能であり、汚物量によっては量的余裕がないともれてしまっていた。そのた

め病院等ではそういう患者に対しては、おむつを 2 重、3 重にしたり、さらにはシーツの上に別の紙おむつを敷いたりして対応しているが、それでも防げずに、ねまきやシーツなどを汚すことになって、その処理に困っており、経済的および介護の負担は非常に大きい。これらは長期療養中のお年寄りの場合には身体が変形していて、現在のおむつではよく当てられない場合が多いことにも原因があると共に、もれ防止ギャザーでは身体が密着していて押しつぶされて溢流したり、しみ出したりして横もれ、背もれ、腹もれとなるほか床ずれもあって問題があった。本発明は、これら従来の欠点を排除しようとするもので、尻とおむつとの間に空間を形成し、尿や汚物の横もれ、背もれ、腹もれなどを確実に防止すると共に、肌あれによるむれや床ずれがなく、常にお尻をドライに保ち快適な状態を維持し安心して用いられる紙おむつを構成簡単で安価な形態で提供することを目的とするものである。

【0004】

【課題を解決するための手段】本発明は、不織布からなる表面材と、該表面材の内面に重合して備えた吸収紙と、表面材と吸収紙との間に介在配備した綿状パルプからなる吸水材とで股当部の前後に腹当ての前部と、背当ての背部とを構成した紙おむつにおいて、該紙おむつの前部から股当部を経て背部に沿って吸収材からなる横漏れ防止突条を一对間隔をあけて平行に肌当面に着脱自在或いは折曲重合突設して、各突条間に空間部を区画形成したものである。

【0005】

【発明の実施の形態】紙おむつの背部を尻側に当て前部を腹側に持ち起して腹当部を前部に接合しおむつを装着したとき、盛り上っている突条部が肌に押し付けられて尻に密着し身体を横向きに替えても汚水、汚物の横漏れを防ぐことができると共に、おむつと肌面との間に空間部が常にできるので、むれや床ずれがなくドライ状態で安全に用いられ、さらに汚物量の多い場合でも空間部があつて余裕があり、横もれなど確実にガードし、しかも身体にあわせて調節することもできるのできわめて便利であり、取扱い容易で信頼性の高い紙おむつとして使用することができる。

【0006】

【実施例】本発明の実施例を図 1 乃至図 4 のパンツ型紙おむつの例で説明すると、ポリエチレン、ポリプロピレンまたはポリエステルなどの不織布からなる表面材 1 と、該表面材 1 の内面に重合して備えた吸収紙 2 と、表面材 1 と吸収紙 2 との間に介在配備した綿状パルプからなる吸水材 3 とで股当部 1 2 の前後に腹当ての前部 1 1 と背当ての背部 1 3 とを構成して紙おむつ 1 0 としてある。この場合、表面材 1 には必要に応じて、ポリエチレンフィルムなどの防水材 9 を単独または組合せて用いその表面材 1 の内面側に綿状パルプ、吸収紙 2 その他高分

子吸水材からなる吸水材 3 を重合装着して前部 11、股当部 12 及び背部 13 を成形した紙おむつ 10 を構成するのがよい。

【0007】そしてこの紙おむつ 10 の前部 11 から股当部 12 を経て背部 13 に沿って吸収材からなる横漏れ防止突条 4 を一対間隔をあけて平行に肌当面に着脱自在、或いは折曲重合突設して突条 4、4 間に空間部 5 を区画形成してある。該横漏れ防止突条 4 としては、綿状パルプを吸収紙或いはネット状若しくは多孔性の樹脂フィルムで被覆したレール状の盛上げ部材例えば高さ 1.5~2.5 cm、巾 2.5~5.0 cm の突条 4 を紙おむつ 10 の内面即ち吸収紙 2 或いは吸水材 3 のいずれか、または両者面上に接着層 6、例えば粘着テープ或いはホットメルトその他接着剤層を介して着脱自在に配備し、身体にあわせて自由に調節できるようにしてあるが、前記紙おむつ 10 の内面に内張りされる吸水材 3 の盛り上げ部で一体に賦形することもできるし、体重によって圧迫されて突条 4 は若干圧縮されるが空間部 5 の確保を容易にしてある。

【0008】なお、前記横漏れ防止突条 4 は、吸水材を芯材として表面材で覆ったものを用いてあるが、芯材としてクッション材、或いはその他つぶれにくい柔い素材を用いて盛上げ部とすることもできる。また、前記突条 4 を間隔をあけて一対平行に配備してあるが、必要に応じ、その両端部に橋絡させた突条（図示せず）を前部 11 及び背部 13 に一体または別個体で備えて、もれ防止の安全性をさらに高めることもできる。

【0009】図 5 の例では、前記横漏れ防止突条 4 が、綿状パルプの芯材を吸収紙で被覆したテープ状吸水材からなり、該テープ状吸水材の長手方向に沿った中央部から断面 U 字状に二つ折りに折曲げ重合した棒状の盛上げ部材 41 を用いて、折曲部位を紙おむつの外側にして粘着テープ、或いは布製ファスナーなどの接着層 6 で着脱自在に対向配備してあって、折り曲げによる反撥力で身体への密着性をよくすることと、空間部 5 の形成確保を容易化するようにしてあり、しかも折り曲げによる隙間 14 によって横もれ防止が確実に、かつ容量増大に役立たせることもできる。前記盛上げ部材 41 は一部が、接着層 6 で接着していないので必要に応じおむつ表面に沿わせてフラットな状態で使用することもできるし、また、横漏れ防止突条 4 の折曲げ形成には、シート素材を折り返し一重または多重に折曲げ重合して棒状の盛上げ部材 41 を構成してもよい。

【0010】図 6 の例では、前記横漏れ防止突条 4 として、帯状の吸水材 3 の両側縁に沿って平行に盛り上がった山形部 42 または折返し重合による山形部を備えたものからなり、尿のしみ出しや軟便の横もれをガードできるようにしてあり、表面側には吸収紙 2 或いは布状材を被覆することが配慮される。

【0011】なお、前記横漏れ防止突条 4 或いは盛上げ

部材 41 の紙おむつ 10 への接着には、前部 11 及び背部 13 の端縁側で表面材 1 に行ってもよいし全長にわたって吸収紙 2 を含んで部分的或は連続して行ってもよい。また紙おむつ 10 には股当部 12 にポリウレタンなどの伸縮材 7 でギャザー部 8 を設け、さらに前部 11 及び背部 13 にギャザー部 17、18 を設けてあるが、必要に応じ省略することもできる。さらに、前記背部 13 の両側縁には腰まわりに沿う腹当部 15 を設け、該腹当部 15 に前部 11 に接合する貼着テープ 16 のある連結片を備え、前部 11 に形成したポリエチレンフィルムの防水材 9 に着脱自在に接続できるように構成してある。

【0012】図 7 及び図 8 の例では、紙おむつ 10 の前部 11 から股当部 12 を経て背部 13 にわたり、吸水材 3 を含むシート素材を水平方向或いは垂直方向に折り返し折曲げて突条 4 とし、該突条 4 を平行に間隔をあけて一対設けてあり、前部を腹側に持ち起こして接合テープ 161 のある腹当部 15 を前部 11 に接合し、おむつをした時に腹部でしっかり止めることができ、おむつが動かないで漏れ防止を確実に行うことができるようにしてある。この場合、前記突条 4 の構成には芯材で厚さを調整することができるが、隙間 14 を形成しつつ水平方向に一つの折り返しのもの（図 8 a）に限らず、二重に折り返したもの（図 8 b）としたり、多重に折り返したもの（図 8 c）で、突条の高さを選ぶことができる。また、折り返しは垂直方向に折り返す、即ちギザギザに折り曲げて突条 4 を成形することもでき、この折曲げ部分を全長にわたり接着するか、部分的に接着する、例えば両端部位のみを接着することなどで型崩れを防ぐ配慮がなされている。

【0013】図 1 の例の紙おむつを用いて病院で試着実験をしたところ、最も介護に手のかかる患者さんで、午後 8 時から翌朝の 6 時まで 10 時間そのままいたところ、360 g の尿便があったが漏れは全くなかった。その患者は普段は 4 時間の間隔でおむつの取り替えをしていたが、その度に起こされたり体が痛んだりして嫌がっていたため 10 時間もおむつを替えなかったので、ぐっすり眠れたらしく機嫌がよかった。また、寝間着やシーツを 3 回も汚した患者に試着したところ、1 枚目は 2 時間位で 520 g の尿便をしていたが漏れていなかった。さらに 2 枚目のおむつも 330 g の尿便があったがこれも漏れていなかった。しかし、3 枚目には従来のおむつをしたところ、夜 11:00 から翌朝 2:30、即ち 3 時間 30 分で 260 g の尿便をして漏れてしまい、この時は寝間着もなくなり、後はバスタオルで代用する結果となってしまった。以上実施例の紙おむつは従来のものに比べて格段の効果があることが実証された。

【0014】

【発明の効果】本発明は、不織布からなる表面材と、該表面材の内面に重合して備えた吸収紙と、表面材と吸収紙との間に介在配備した綿状パルプからなる吸水材とで

股当部の前後に腹当ての前部と、背当ての背部とを構成した紙おむつであって、該紙おむつの前部から股当部を経て背部に沿って吸収材からなる横漏れ防止突条を一对間隔をあけて平行に肌当面に着脱自在或いは折曲重合突設して各突条間に空間部を区画形成したことにより、紙おむつの背部を尻側に当て前部を腹側に持ち起して腹当部を前部に接合しおむつを装着したとき、盛り上っている突条部が肌に押し付けられて尻に密着し身体を横向きに替えても汚水、汚物の横漏れを防ぐことができると共に、おむつと肌面との間に空間部が常にできるので、むれや床ずれがなくドライ状態で安全に用いられ、さらに汚物量の多い場合でも空間部があって余裕があり、横もれなど確実にガードし、しかも身体にあわせて調節することもできるのできわめて便利であり、取扱い容易で信頼性の高い紙おむつとすることができ、快適な状態を維持し安心して用いられるものである。

【図面の簡単な説明】

【図 1】 本発明の実施例を示す展開状態の平面図である。

【図 2】 図 1 の A-A 線における縦断面図である。

【図 3】 図 1 の例の着付け使用状態の斜視図である。

【図 4】 図 1 の例の着装完了直前状態の表面図である。

【図 5】 本発明の他の実施例の縦断面図である。

【図 6】 本発明のさらに他の実施例の縦断面図である。

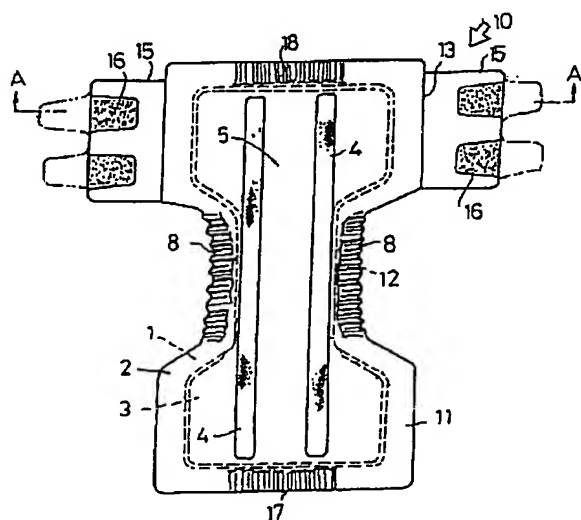
【図 7】 本発明の他の実施例の展開斜視図である。

【図 8】 図 7 の B-B 線における拡大縦断面図で、(a) は一つ折りの突条を示し、(b) は二つ折りの突条で、(c) は多重折りの突条を示す。

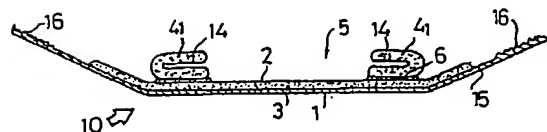
【符号の説明】

- 1 表面材
- 2 吸収紙
- 3 吸水材
- 4 突条
- 41 盛り上り部材
- 42 山形部
- 5 空間部
- 6 接着層
- 7 伸縮材
- 8 ギャザー部
- 9 防水材
- 10 紙おむつ
- 11 前部
- 12 股当部
- 13 背部
- 14 隙間
- 15 腹当部
- 16 貼着テープ
- 17, 18 ギャザー部

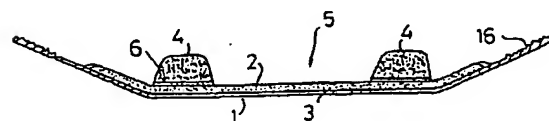
【図 1】



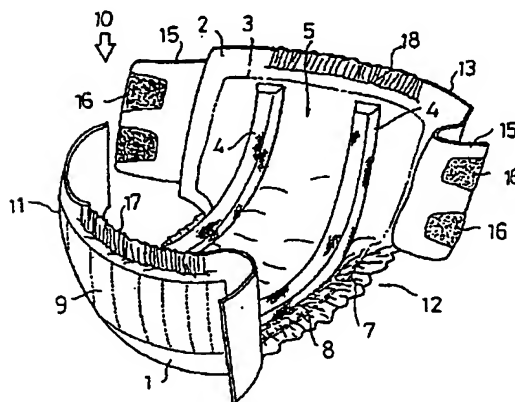
【図 5】



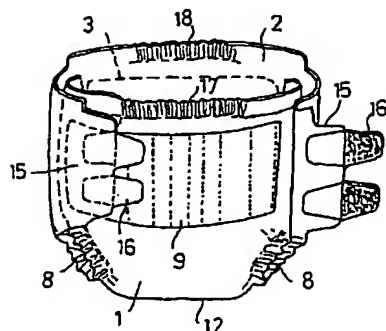
【図 2】



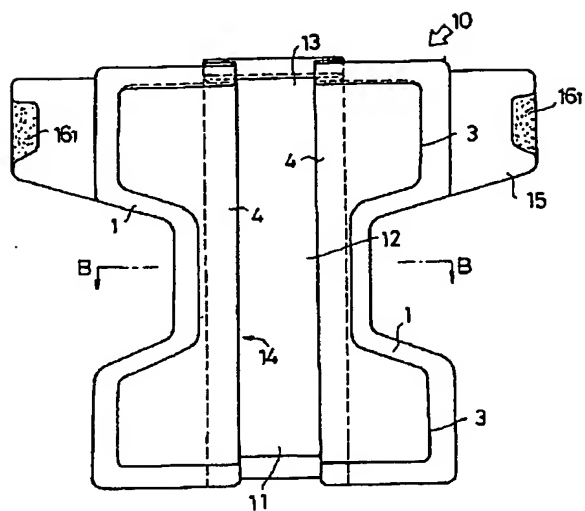
【図 3】



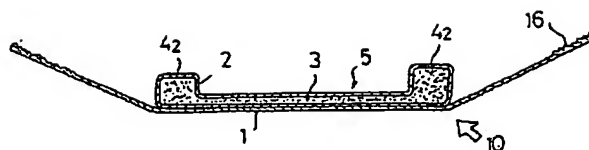
【図 4】



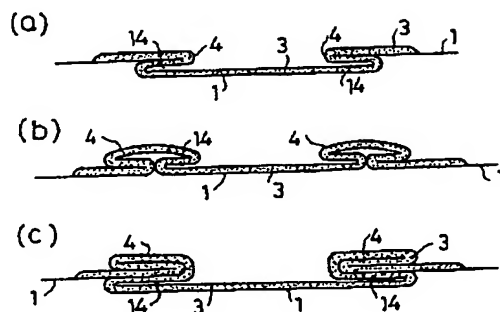
【図 7】



【図 6】



【図 8】



フロントページの続き

(72) 発明者 名知 了三
神奈川県鎌倉市笛田466-8 クリオ鎌倉
笛田410